

**Cost-Benefit Analysis of the Ergonomics Standard**  
**Washington State Department of Labor and Industries**  
**May 2000**

## ***Executive Summary of the Cost-Benefit Analysis for the Ergonomics Rule***

The Department of Labor and Industries has assessed the costs of compliance and the social benefits of the ergonomics rule (WAC 296-62-05101). The purpose of the rule is to reduce ergonomic risk factors in the workplace that contribute to work-related musculoskeletal disorders (WMSDs). Jobs with any of the risk factors listed in the rule are called “caution zone jobs” and require job analysis and ergonomic awareness training. Jobs where risk factors reach a hazardous level are referred to as “hazard jobs” and require that the employer reduce the hazard to a safe level. The department has conducted a survey of state businesses and estimated that one third of jobs are caution zone jobs, and about one out of six qualify as hazard jobs.

The cost to society from WMSDs is sizable. Total workers’ compensation (State Fund and Self-Insured) claims costs for WMSDs averaged \$410.3 million for 1995-97. The actual cost to society from WMSDs is actually much higher and includes costs from reduced long term earnings potential for injured workers, lost taxes and fringe benefits, administrative costs for claims management, indirect employer costs and the costs from unreported WMSDs. The department estimates the total cost of WMSDs to the employees and employers of the state at \$1.56 billion per year.

The department has assessed the time and cost requirements for businesses to comply with the following compliance elements of the ergonomics rule: rule review, caution zone job identification, caution zone job analysis, engineering and administrative controls, awareness education, hazard job training, training of evaluators, managerial and administrative time. Total annualized compliance costs for all businesses in the state were estimated at \$80.4 million, or \$37.77 per employee.

The social benefits from the ergonomics rule are the cost savings associated with the decrease in WMSDs that follow the reduction of WMSD hazards in the workplace. Based on a comprehensive review of ergonomic interventions and epidemiological studies the Department estimates that the ergonomics rule will prevent 40 percent of WMSD injuries and 50 percent of WMSD costs once all programs are fully effective.

The department has estimated the annualized present value of compliance costs for the ergonomic rule to be \$80.4 million and the annualized present value of social benefits to be \$340.7 million. Comparing the costs and benefits of the rule demonstrates that the benefits to society greatly exceed the costs of compliance: a benefit-cost ratio of 4.24 to 1.0. In every one digit SIC industry category the benefits to society significantly outweigh the costs of compliance. These findings signify that the department has fulfilled the requirements of the APA (RCW 34.05.328(1)(c)) and EO97-02 (criteria 6) that the benefits of a rule, or regulation, exceed the costs.